

Listing of Claims:

1. (Currently amended) ~~A method and a composition of a plasmon enhanced body treatment and bacterial killing comprises of:~~

- ~~a) Surface plasmon resonance and a metal nanoparticle interacting with a nearby biological substance;~~
- ~~b) Surface plasmon resonance and a metal nanoparticle interacting with a nearby biological substance and with a nearby chemical agent;~~
- ~~e) Surface plasmon resonance and a metal nanoparticle interacting with a nearby biological substance in the presence of electromagnetic radiation;~~
- ~~d) Surface plasmon resonance and a metal nanoparticle interacting with a nearby biological substance and with a nearby chemical agent in the presence of electromagnetic radiation;~~
- ~~e) A source for generating surface plasmon resonance in the metal nanoparticle;~~
- f) An electromagnetic radiation source.

A method of plasmon enhanced body treatment or bacterial management comprising: providing a composition capable of changing a property of a biological substance, the composition comprising a plasmon source and a plasmon excited nanoparticle; and allowing an object containing the biological substance to interact with the composition.

- 2. (Currently amended) The method of claim 1, wherein the biological substance is selected from a group consisting of: a biomolecule, tissue, skin, cells, body organs, bacteria, virus, pathogen, biochemical warfare agent, human body, or animal body.
- 3. (Currently amended) The method of claim 1, wherein the composition is further provided with the a chemical agent and the chemical agent is selected from the group of:

an inorganic molecule, organic molecule, mixture of inorganic and organic molecules, or drug.

4. (Currently amended) The method of claim 1, wherein the chemical agent is hydrogen peroxide.
5. (Currently amended) The method of claim 1, wherein the ~~metal~~ nanoparticle is a metal, metallic salt, electric conductor, electric superconductor, or electric semiconductor.
6. (Currently amended) The method of claim 5, wherein the metal is selected from a group consisting of silver, ruthenium, platinum, rhenium, rhodium, osmium, iridium, copper, zinc, nickel, chromium magnesium, iron, palladium, gold, titanium, titanium dioxide, silver nitrate, alkaline earth metal, gold, copper, silver oxide, or silver ion.
7. (Currently amended) The method of claim 1, wherein the ~~metal~~ nanoparticle is uncoated or coated with a material selected from the group of: a biorecognitive ~~material~~, bioactive ~~material~~, dielectric ~~material~~, chemorecognitive ~~material~~, chemical active ~~material~~, polymer, environmentally sensitive polymer, or polymer containing drug.
8. Canceled
9. (Currently amended) The method of claim 1, wherein the ~~metal~~ nanoparticle size is in a range of 0.1 nm to 200,000 nm in at least one of the dimensions.
10. (Currently amended) The method of claim 1, wherein the ~~metal~~ nanoparticles is a thin film, colloid, fiber, metal island, or nanowire.
11. Canceled
12. Canceled
13. Canceled
14. Canceled
15. Canceled

16. (Currently amended) The method of claim 1, ~~wherein the body treatment~~ is used in a joints treatment, tissue treatment, cosmetic treatment, cosmetic prevention, rejuvenating treatment, therapy treatment, bacterial disease treatment, antibacterial treatment, virus treatment, cancer treatment, biostimulation treatment, antiodor treatment, sun prevention treatment, sunburn treatment, skin burn treatment, wound treatment; or antiinflammation treatment.
17. (Currently amended) The method of claim 1, ~~7, and 8, wherein the body treatment~~ is performed at a specific location in the ~~body-object~~, where said the metal nanoparticle remains in the location for the ~~body-object~~ treatment.
18. Canceled
19. (Currently amended) The method of claim 1, ~~wherein bacterial killing~~ is applied to in: an air conditioning and heating system, air humidity control system, air ventilation system, disinfectant product, antiseptic product, water supply line, water container, septic tank, bathtub, whirlpool, Jacuzzi, swimming pool, dental waterlines, food technology, animal food technology, household cleaning product, kitchen product, product for pets, cosmetic product, hygiene product, medical bio-safety product, hair product, laundry product, textile material, pharmaceutical product for human, pharmaceutical product for animal, health supplement product, drinking water product, beverage product, paint product, biodefense product, furniture preserving product, art preserving product, sunburn protection product; or sun-tanning technology.
20. (Currently amended) The method of claim 1, wherein the plasmon source ~~for generation surface plasmon resonance in the metal nanoparticle~~ is selected from the group of energy sources of: electromagnetic radiation, ~~sonic wave technologies, electrical technologies, magnetic technologies,~~ or ionized radiation technologies.